

REMARKS

Claims 58-67 are pending herein. The Examiner has rejected claims 59 and 67 under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner has rejected claim 56 as being anticipated by Salama et al. The Examiner has further rejected claims 57-63, 65 and 67 as being unpatentable under 35 U.S.C. § 103 over Salama et al. in view of Rigney and rejected claim 66 as being unpatentable under 35 U.S.C. § 103 over Salama et al. in view of Rigney and in view of Ohnishi. The Examiner has indicated that claim 64 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. § 112, second paragraph and to include all of the limitations of the base claim and any intervening claims.

Claims 56 and 57 have been cancelled. Claims 58, 60, 63, 64 and 67 have been amended. The foregoing amendments and the following remarks are considered by applicant to overcome each of the Examiner's outstanding rejections. An early Notice of Allowance is therefore requested.

As suggested by the Examiner, claim 64 has been rewritten in independent form to include the all of the limitations of base claim 56 and intervening claim 57. While the Examiner has also indicated that claim 64 would be allowable if rewritten to overcome the rejections under 35 U.S.C. § 112, second paragraph, the Examiner did not reject claims 56, 57 nor 64 under 35 U.S.C. § 112 in the Office Action. The only claims that were rejected by the Examiner under 35 U.S.C. § 112, second paragraph were claims 59 and 67. As such, applicant believes that amended claim 64 is not subject to rejection under 35 U.S.C. § 112, second paragraph and is allowable.

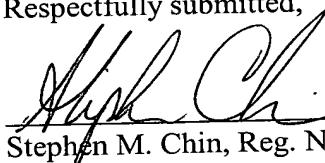
The Examiner rejected claims 59 and 67 under 35 U.S.C. § 112, second paragraph as

being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention for failing to indicate the orientation of the normals on the current-carrying planes. Claims 59 and 67 have both been amended to indicate that the orientation of the normals on the current-carrying planes is to point radially to the axis. Consequently, the Examiner's rejection of claims 59 and 67 under 35 U.S.C. § 112, second paragraph is traversed.

The Examiner rejected claims 56-63 and 65-67, in view of the cited prior art. Claims 56 and 57 have been cancelled. Claims 58, 60, 63 and 67 have been amended to depend from amended claim 64, which is now allowable. By virtue of those amendments, claims 59, 61, 62 and 65-66 are also dependent on amended claim 64. Consequently, the Examiner's rejections of claims 56-63 and 65-67 based on the cited prior art is traversed and these claims are now allowable.

Claims 58-67, the only claims pending in the application, are believed by applicants to define patentable subject matter and should be passed to issue at the earliest possible time. An early Notice of Allowance is requested. Please call the undersigned for any reason to expedite prosecution of this application.

Respectfully submitted,



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IN THE CLAIMS:

Claims 56 and 57 (Cancelled)

58. (Currently Amended) The magnetic bearing according to claim ~~56~~ 64, wherein said superconducting material (2) contains a plurality of grains, which comprise current-carrying, crystalline planes (a-b) wherein normals on said planes point to said first part.

59. (Currently Amended) The magnetic bearing according to claim 58, wherein said first part (1, 20) comprises a configuration of magnets which has a plurality of magnets (1; 6, 7, 8; 11, 12, 13, 14; 30, 31, 32, 34; 50, 51, 52, 53) in series along a shaft (8; 45) and wherein said first part is mounted so as to be rotatable relative to the second part (3, 10), with the shaft (8; 45) being the axis of rotation and the normals on the current-carrying planes pointing radially to the axis of rotation.

60. (Currently Amended) The magnetic bearing according to claim ~~57~~ 64, wherein the distance between the first (1, 20) and second part (3, 10) is between 1 mm and 10 mm, especially between 2 mm and 7 mm.

61. (Original) The magnetic bearing according to claim 60, wherein the multigrain material comprises grains having a dimension between 2 and 20 mm.

62. (Original) The magnetic bearing according to claim 60, wherein the magnets (1; 6, 7, 8; 11, 12, 13, 14; 30, 31, 32, 34; 50, 51, 52, 53) in the first part are permanent magnets.

63. (Currently Amended) The magnetic bearing according to claim ~~57~~ 64, wherein said first part (1, 20) is constructed as a rotor and the second part (3, 10) is constructed as a stator of an electric motor.

64. (Currently Amended) A magnetic bearing comprising a Type II superconducting material (2) which is a melt-textured multigrain material and which is made of or contains a $X_x\text{Ba}_2\text{Cu}_3\text{O}_{(7-\delta)}$ compound with X being a rare earth metal from the group Y, Sm, Nd, Tb, and with $1 \leq x \leq 1.6$ and $0.01 \leq \delta \leq 0.10$, a first part (1, 20) and a second part (3, 10), wherein said first part (1, 20) has permanent-magnetic characteristics at least in some areas thereof and is mounted magnetically relative to said second part (3, 10), wherein said second part (3, 10) comprises the Type II superconducting material (2) and ~~The magnetic bearing according to claim 57, in which~~ wherein said first part is connected with a polygon mirror (40).

65. (Original) The magnetic bearing according to claim ~~57~~ 64, wherein the first (1, 20) and second part (3, 10) are enclosed by an air-tight housing (62).

66. (Original) The magnetic bearing according to claim 65, wherein the housing (62) is evacuated to a pressure of less than 10^{-4} Pa or the housing (62) is filled with a gas having a molecular weight of less than 28, especially with helium.

67. (Currently Amended) The magnetic bearing according to claim 58, wherein each magnet (1; 6, 7, 8; 11, 12, 13, 14; 30, 31, 32, 34; 50, 51, 52, 53) is oriented with its poles oppositely aligned relative to the next magnet (1; 6, 7, 8; 11, 12, 13, 14; 30, 31, 32, 34; 50, 51,

52, 53) in ~~the series~~ along a shaft, and wherein the normals on the current-carrying planes are ~~directed vertical~~ pointed radially to said shaft (8; 45), and wherein a distance of more than 0.1 mm is provided between the first (1, 20) and second part (3, 10).